

By Hal Andrews

HO5S-1

Among the early post-WW II production helicopters, Sikorsky's S-52 models are rarely highlighted in published accounts of the company's S series, which continues today with the S-92 transport helicopter. Developed to replace Sikorsky's wartime two-place models and to compete with other companies' two-place helicopters that were becoming available, the S-52 was the first Sikorsky design to use all-metal main and tail rotor blades, as well as having a new simplified rotor system.

First flight and air show appearances in 1947 gained a lot of attention for the sleek-lined new helicopter, but its record-setting speed and altitude performance didn't portend competitive sales—even with civil certification. The next step was an upgrade to a four-place version



using the same rotor system with a higher powered Franklin engine. In 1949 the Army ordered four of these S-52-2s, militarized as YH-18s, for service tests. The S-52-2 was also certified for civil operation.

Among Sikorsky helicopters, the S-52s came closest to the typical single main rotor "pod-and-boom" design. In redesigning the all-metal semi-monocoque pod to increase the S-52-2's cabin capacity, provisions



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Top, the Sikorsky S-52 two-place helicopter was the genesis of the four-place HO5S-1 that served the Marine Corps and Coast Guard in the 1950s. Above, the Coast Guard received eight HO5S-1s in 1952, the same year that they began to be used by the Marines in Korean War operations, left. Opposite page, an HO5S-1 transports casualties to the hospital ship *Repose* (AH 16).



were made for replacing the two left seats with two stretchers, one over the other, with pilot and attendant in tandem on the right. The air-cooled six-cylinder Franklin engine was moved aft and tilted, allowing the passenger/cargo load to be carried more directly under the rotor, and the tricycle landing gear was replaced with quadricycle. A downward sloped tail fin on each side of the tail boom below the tail rotor was added for increased stability in the final configuration.

The Army elected to skip these “in-between-size” helos, going with larger helicopters and the small Bell H-13 series (subsequently familiar to fans of the *M*A*S*H* TV series). However, the Marines wanted an updated, smaller replacement for the HO3S-1s in their combined fixed- and rotary-wing observation/liaison VMO squadrons. Right after the start of Korean hostilities in June 1950, production HO5S-1s were ordered “off the shelf”; they were similar to the YH-18s. With greater emphasis on other Sikorsky

HO5S-1

Rotor diameter:	33'
Length, rotors turning:	39'7"
Height:	8'8"
Engine:	Franklin O-425-1 245 hp
Max speed:	94 kts
Max range:	165 nm
Service ceiling:	12,400'
Hover ceiling (in ground effect):	2,100'
Weight: Design	2,570 lbs
Max takeoff	2,769 lbs
Crew:	2
Passengers:	2

models, HO5S-1 production was slow getting underway; first deliveries for test and evaluation were in early 1952.

VMO-1 was the first operating squadron to receive HO5Ss, beginning in July 1952, with VMO-6 following. In VMO-6 these replaced HO3S-1s for Korean combat and combat rescue operations. By early 1953, the 79 HO5Ss had all been delivered, and the two squadrons operated them into the post-Korean combat years. In mid-1952 the Coast

Guard ordered eight as HO5S-1Gs, all delivered that fall.

Both the Marines and Coast Guard found the “5Ss” less than fully satisfactory. Not only were speed and range less than desired, but the propulsion systems, both engine and accessories, presented maintenance and reliability concerns. However, the cabin arrangement was satisfactory for transporting ambulatory and other personnel, and the HO5Ss continued in service into the mid-1950s. By 1956 most were in storage; VMO-1’s last operating HO5S-1s joined them in June 1957.

Following experimental use of a surplus HO5S-1 as an electric-powered helicopter, Orlando Helicopter Airways recently completed a final restoration for display at the air museum in Deland, Fla., so this frequently overlooked member of the Sikorsky S series won’t be completely forgotten.

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